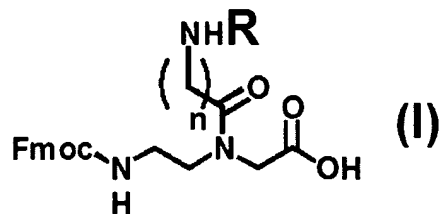




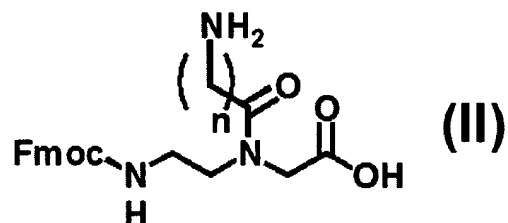
[Chemical 3]



(wherein R represents H, a functional molecule or a protecting group, and n represents an integer of 1 to 11), wherein the aforementioned method contains one of the following steps a) through c) :

a) a step of reacting a compound represented by the following general formula (II) :

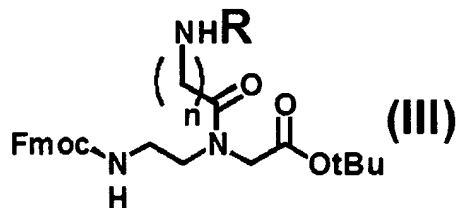
[Chemical 4]



(wherein n represents an integer of 1 to 11) with an active ester derivative with OSu or OPfp of a functional molecule or an isothiocyanate derivative of a functional molecule;

b) a step of hydrolyzing a compound represented by the following general formula (III) :

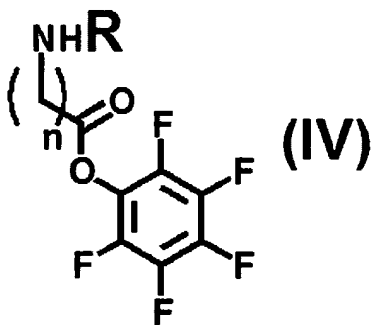
[Chemical 5]



(wherein R represents H, a functional molecule or a protecting group, and n represents an integer of 1 to 11); and,

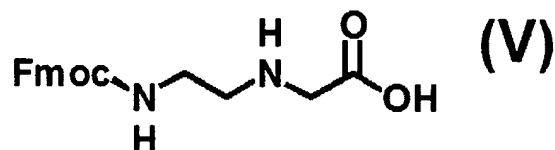
c) a step of reacting a compound represented by the following general formula (IV):

[Chemical 6]



(wherein R represents H, a functional molecule or a protecting group, and n represents an integer of 1 to 11) with a compound represented by the following general formula (V):

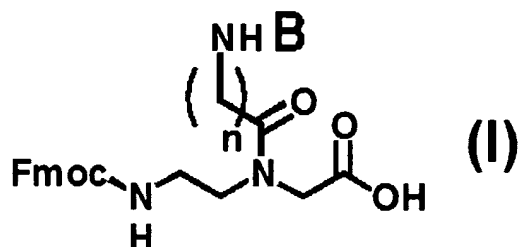
[Chemical 7]



7. (Currently Amended) A method for producing a functional PNA oligomer comprising a step of substituting group R H or a part or all of protecting group of B of a PNA oligomer to which is bonded

one type or two or more types of a compound represented by the following general formula (I):

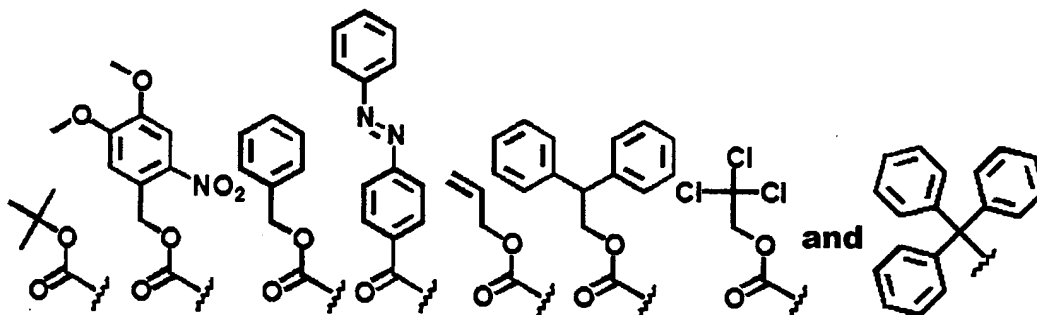
[Chemical 8]



(wherein  $R_B$  represents H, a functional molecule or a protecting group, and n represents an integer of 1 to 11) sequentially or simultaneously with a functional molecule.

8. 4. (Currently Amended) The method according to claim 7 ~~10~~, wherein  $R_{\text{the functional molecule in B}}$  is selected from the group consisting of the following:

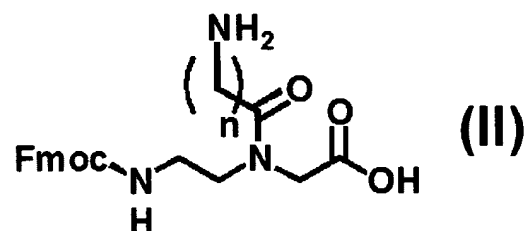
[Chemical 9]



9. (Currently Amended) The method according to claim 6 ~~or~~ 7, wherein the compound represented by general formula (I) is produced by one of the steps of the following a) through c):

a) a step of reacting a compound represented by the following general formula (II):

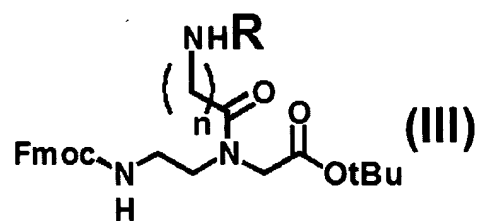
[Chemical 10]



(wherein n represents an integer of 1 to 11) with an active ester derivative with OSu or OPfp of a functional molecule or an isothiocyanate derivative of a functional molecule;

b) a step of hydrolyzing a compound represented by the following general formula (III):

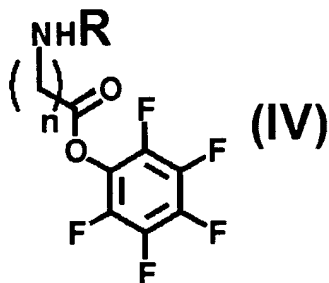
[Chemical 11]



(wherein R represents H, a functional molecule or a protecting group, and n represents an integer of 1 to 11); and,

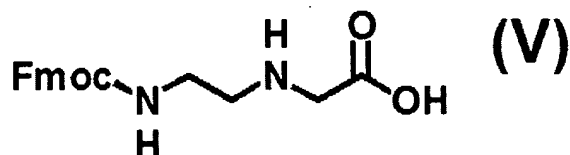
c) a step of reacting a compound represented by the following general formula (IV):

[Chemical 12]



(wherein R represents H, a functional molecule or a protecting group, and n represents an integer of 1 to 11) with a compound represented by the following general formula (V):

[Chemical 13]



10. (Currently Amended) The method according to claim 1, ~~any of claims 10 to 12~~, wherein the functional molecule is one type or two or more types selected from a light-emitting molecule, light-dissipating molecule, membrane-permeating functional molecule, organ-selective functional molecule, bactericidal functional molecule, molecule-recognizing functional molecule, photo-crosslinking functional molecule, photosensitizing functional molecule, DNA-bonding molecule and DNA-severing functional molecule.

11. (Original) The method according to claim 10, wherein the functional molecule contains a light-emitting molecule and a

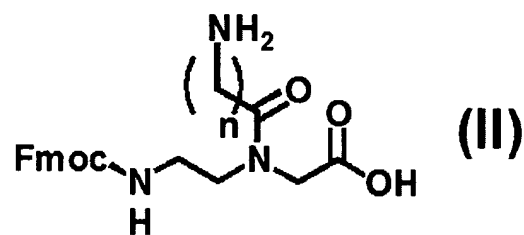
membrane-permeating functional molecule, and the membrane-permeating functional molecule is a water-soluble amino acid.

12. (Original) The method according to claim 10, wherein the functional molecule contains a light-emitting molecule and a light-dissipating molecule, and the light-emitting molecule is FITC, naphthalimide, flavin, FAM, rhodamine, TAMRA, ROX, pyrene or coumarine, and the light-dissipating molecule is Dabcyl, HABA, NDI or Azo.

13. (New) The method according to claim 7, wherein the compound represented by general formula (I) is produced by one of the steps of the following a) through c):

a) a step of reacting a compound represented by the following general formula (II):

[Chemical 10]

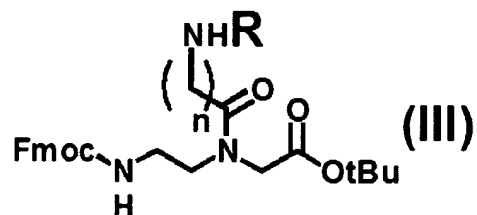


(wherein n represents an integer of 1 to 11) with an active ester derivative with OSu or OPfp of a functional molecule or an isothiocyanate derivative of a functional molecule;

b) a step of hydrolyzing a compound represented by the

following general formula (III):

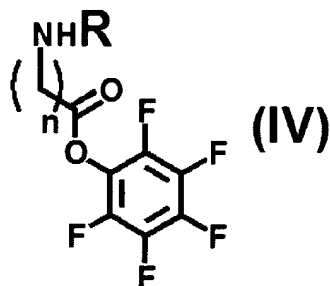
[Chemical 11]



(wherein R represents a functional molecule or a protecting group, and n represents an integer of 1 to 11); and,

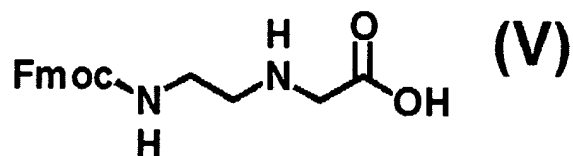
c) a step of reacting a compound represented by the following general formula (IV):

[Chemical 12]



(wherein R represents a functional molecule or a protecting group, and n represents an integer of 1 to 11) with a compound represented by the following general formula (V):

[Chemical 13]





14. (New) The method according to claim 6, wherein the functional molecule is one type or two or more types selected from a light-emitting molecule, light-dissipating molecule, membrane-permeating functional molecule, organ-selective functional molecule, bactericidal functional molecule, molecule-recognizing functional molecule, photo-crosslinking functional molecule, photosensitizing functional molecule, DNA-bonding molecule and DNA-severing functional molecule.

15. (New) The method according to claim 14, wherein the functional molecule contains a light-emitting molecule and a membrane-permeating functional molecule, and the membrane-permeating functional molecule is a water-soluble amino acid.

16. (New) The method according to claim 14, wherein the functional molecule contains a light-emitting molecule and a light-dissipating molecule, and the light-emitting molecule is FITC, naphthalimide, flavin, FAM, rhodamine, TAMRA, ROX, pyrene or coumarine, and the light-dissipating molecule is Dabcyl, HABA, NDI or Azo.

17. (New) The method according to claim 7, wherein the functional molecule is one type or two or more types selected

from a light-emitting molecule, light-dissipating molecule, membrane-permeating functional molecule, organ-selective functional molecule, bactericidal functional molecule, molecule-recognizing functional molecule, photo-crosslinking functional molecule, photosensitizing functional molecule, DNA-bonding molecule and DNA-severing functional molecule.

18. (New) The method according to claim 17, wherein the functional molecule contains a light-emitting molecule and a membrane-permeating functional molecule, and the membrane-permeating functional molecule is a water-soluble amino acid.

19. (New) The method according to claim 17, wherein the functional molecule contains a light-emitting molecule and a light-dissipating molecule, and the light-emitting molecule is FITC, naphthalimide, flavin, FAM, rhodamine, TAMRA, ROX, pyrene or coumarine, and the light-dissipating molecule is Dabcyl, HABA, NDI or Azo.